REMARKS

The February 2, 2007 Official Action and the references cited therein have been carefully reviewed. In view of the amendments presented herewith and the following remarks, favorable reconsideration and allowance of this application are respectfully requested.

At the outset it is noted that a shortened statutory response period of three (3) months was set forth in the February 2, 2007 Official Action. Therefore, the initial due date for response was May 2, 2007. A petition for a three (3) month extension of time is presented with this response, which is being filed within the three month extension period.

As another preliminary matter, Applicants note that the Examiner has deemed the restriction requirement proper and made it final. Accordingly, claims 5, 6, 11-17, 20-27 and 30 are withdrawn from consideration and claims 1-4, 7-10, 18, 19, 28, 29 and 31-35 are being examined on the merits.

As a final preliminary matter, submitted herewith is an information disclosure statement listing references the Examiner is requested to consider in connection with his review of this application. The requisite fee under 37 C.F.R. §1.97c) for IDS submission after receipt of a first action on the merits is also enclosed.

At page 2 of the Official Action, the Examiner indicates that the application is not in compliance with the sequence listing rules and specifically refers to the sequences provided on page 18 in support of his position. The Examiner's attention is respectfully drawn Applicant's submission of February 2, 2005 wherein a paper copy and CRF of the sequence listing were submitted to the USPTO. Also included in this submission was a preliminary amendment which provides the requisite SEQ ID NOS: for the sequences presented on page 18. Inasmuch as the specification fully complies with the requirements of 37 C.F.R. §1.821-1.825, the Examiner is requested to withdraw his objection to the application on this

ground.

Claims 18, 19, 33 and 35 are objected to for depending on a rejected base claim. These claims have been cancelled without prejudice, thereby obviating this objection.

At page 3 of the Application, the Examiner has objected to the specification for containing an embedded hyperlink or other form of browser-executable code. The specification has been amended to omit the hyperlinks, thereby rendering this objection moot.

The Examiner has rejected claims 1-4, 7-10, 28, 29, and 31-32 under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the enablement requirements of the statute.

At page 7 of the Official Action, the Examiner has rejected claims 7, 18, 19, 33 and 35 as allegedly failing to comply with the written description requirement.

Claims 18, 19, 33 and 35 are further rejected under 35 U.S.C. §112, first paragraph as the Examiner contends that the subject matter encompassed by these claims was not described in the specification in such a way as to enable the skilled person to make and/or use the invention.

The Examiner has rejected claims 9, 10, 18, 19, 33 and 35 under 35 U.S.C. §112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.

Applicants respectfully submit that the claims as presently amended are in condition for allowance. Each of the above-noted objections and rejections under 35 U.S.C. §112, first and second paragraphs is therefore, respectfully traversed.

THE CLAIMS AS AMENDED FULLY SATISFY

THE REQUIREMENTS OF 35 U.S.C. §112, FIRST PARAGRAPH

The Examiner has rejected the pending claims under 35 U.S.C.§112, first paragraph, asserting that the specification fails to both enable and fully describe the subject matter encompassed by the claims.

A. ENABLEMENT

Applicants respectfully disagree with the Examiner's position. In In re Wands, 8 USPQ2d 1400 (1988), the Federal Circuit Court of Appeals held that engaging in experimentation to practice a claimed invention does not render the disclosure non-enabling as long as the experimentation required is not "undue". The Court stated that: "The determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness . . . The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." In re Wands, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

Another of the Wands factors takes into account the level of ordinary skill in the art. In the field of assessing factors which affect transplant rejection or acceptance, the level of skill is high. The skilled person frequently determines expression levels of expression of different genes in tissues (for example, in biopsies from donor organs) and is perfectly capable of determining a suitable reference level of expression for any given protein depending on the context. This is regarded as being conventional within the art and thus does not present any undue burden of experimentation.

In support of Applicants contention, submitted herewith in connection with the Information disclosure statement are a

series of non-patent literature references describing methods for analyzing gene expression levels in renal grafts which were available to the skilled artisan at the time the application was filed. See Kim et al., White et al., Akalin et al., Mas et al., Kawase et al. and Sharma et al. Typically, gene expression levels in biopsies from grafts undergoing rejection (chronic rejection or acute rejection) are compared with those in biopsies from healthy tissue, or from grafts undergoing a different type of rejection. Most of these studies use RT-PCR or micro-array analysis to investigate gene expression. None of these papers suggests that there is any difficulty in establishing whether a given gene is expressed at an elevated level in the tissue under test as compared with the chosen control.

The Examiner contends that undue experimentation is required to determine a "standard" reference level for the G22P1 protein encompassed by the claims and asserts there is no support in the specification for identifying such a reference level of expression. Claim 1 has been amended to recite the reference level of expression is that observed in a healthy tissue sample. Support for this amendment can be found in claim 10 and in Figure 1. Figure 1 clearly shows that G22P1 expression is elevated in CAN tissues when compared to levels observed in normal cadaveric donor or living biopsy samples. In light of this disclosure, it cannot be reasonably maintained that the specification fails to enable the method encompassed by claim 1 and claims dependent therefrom.

In making this rejection, the Examiner relies on the teachings in Melk et al. and asserts that these documents show that a method of comparing the level of expression of a given protein in a donor tissue to a "standard" reference level of the same protein would be unpredictable because the art teaches that telomere length varies, for example, with age. The results described by Melk show that it is possible to correlate telomere lengths in renal tissue (cortex and

medulla) with age. See, for example, Figures 2 and 4. Therefore this document provides no a priori reason to believe that levels of telomere binding proteins in general, and G22P1 in particular, are unpredictable in the population at large. At best, it shows that the skilled person may be able to refine their assay for G22P1 expression by taking account of factors such as donor age when assessing the expression level in a given sample. However this does not mean that an assay which does not take account of such factors would not provide perfectly acceptable results.

Joosten simply analyzes telomere length and expression of specific known markers of cellular senescence in a rat model of chronic allograft rejection. It says nothing about the levels of G22P1 expression in donor tissues and so it is not clear how this paper can be used to support an objection of lack of enablement with regard to the present claims.

In view of the amendments to the claims and the foregoing remarks, it is respectfully submitted that 1-4, 7-9, 28, 29, 31 and 32 are fully enabled. Accordingly, the rejection of the aforementioned claims on this basis is inappropriate and should be withdrawn.

B. WRITTEN DESCRIPTION

At page 7 of the Official Action, the Examiner has rejected claims 7, 18, 19, 33 and 35 as lacking an adequate written description. It appears as if claim 7 has been erroneously included in this rejection as this claim does not read on treatment of donor tissues. Applicant has cancelled claims 18, 19, 33 and 35 without prejudice, thereby rendering the written description and enablement rejections of these claims moot. Applicant reserves the right to file one or more continuation applications on the subject matter of any claims cancelled in connection with this response.

THE METES AND BOUNDS OF THE CLAIMS AS AMENDED ARE CLEAR TO ONE OF ORDINARY SKILL IN THE ART

The relevant inquiry in determining whether a given claim satisfies the requirements of 35 U.S.C. §112, second paragraph, is whether the claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity such that the metes and bounds of the claimed invention are reasonably clear. In re Moore, 169 U.S.P.Q. 236 (CCPA 1971). Applicant respectfully submits that with respect to claims 1-4, 7-9, 28, 29, 31, and 32 of the present application, such inquiry must be answered in the affirmative.

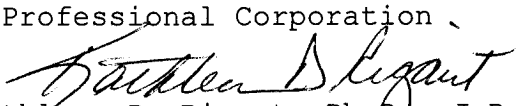
The term "substantially" has been omitted from claim 9, thereby rendering the rejection of this claim moot. The Examiner contends that the meaning of "healthy" in claim 10 is indefinite. Claim 10 has been cancelled and this recitation has been included in amended claim 1. Applicant submits that the meaning of this term is clear to one of skill in the art and is in no way indefinite. As evidenced by the papers submitted herewith, the skilled person is well aware of what types of tissue comprise normal, healthy tissue and diseased tissue suitable for use in differential gene expression analyses to identify those targets whose expression is altered in the diseased state. Indeed, the term "healthy is defined in Stedman's Medical Dictionary as "Well, in a state of normal functioning, free from disease". Accordingly, the skilled person is readily apprised on the subject matter encompassed by the claims as amended. Nothing more is required under 35 U.S.C. §112, second paragraph. Thus, the rejection is untenable and should be withdrawn.

CONCLUSION

No new matter has been introduced into this application by reason of any of the amendments presented herewith. In view of the present claim amendments, and the

foregoing remarks, it is respectfully urged that the rejections set forth in the February 9, 2007 Official Action be withdrawn and that this application be passed to issue. In the event the Examiner is not persuaded as to the allowability of any claim, and it appears that any outstanding issues may be resolved through a telephone interview, the Examiner is requested to telephone the undersigned attorney at the phone number given below.

Respectfully submitted,
DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation

By 
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PTO Registration No. 43,047